



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Pruett, James Gary Docket No.: HTI-8091
Serial No: 09/940,901 Examiner: Edward J. Cain
Filed: August 28, 2001 Group No.: 1714
For: Substantially Pure Bulk Pyrocarbon and Methods of Preparation

COMMISSIONER FOR PATENTS

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I hereby certify that this correspondence is being deposited on the date shown below with the United States Postal Service as First Class Mail in an envelope with sufficient postage addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Joan R. Barris

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Joan R. Barris

(signature of person mailing paper)

10-1-2004

(date)

DECLARATION UNDER 37 C.F.R. §1.132

Sir:

I, James Gary Pruett, hereby declare that:

1. At the time the application for patent was submitted I resided in Cypress, California and now reside in Broadview Heights in the State of Ohio.
2. I was a Research & Development Manager with Hitco Carbon Composites, Inc. and was employed by them and their corporate predecessors for eleven years as a member of its Research and Development Department. I specialized in Carbon Materials Processing while at Hitco Carbon Composites, Inc. and its predecessors.
3. As Research & Development Manager, I am familiar with the subject process and its use as claimed in the above-referenced patent application, U.S. Serial No. 09/940,901. The present process is directed to producing substantially pure pyrolytic carbon. More particularly, it is a process for producing bulk quantities of substantially pure pyrolytic carbon utilizing a high surface area inorganic particulate material and a hydrocarbon gas in an efficient and cost effective manner.

- 4 The present process utilizes the new availability of ultra-fine refractory inorganic particles, which have been found to exhibit a very high surface area to volume ratio as a "seed" particle on which to deposit pyrolytic carbon. I found that depositing pyrolytic carbon on inorganic particles having a high surface area results in extremely high mass deposition rates per unit volume of starting material within a short period of deposition.
5. The BET surface area test method was used to measure all the surface areas of the inorganic particles exemplified and disclosed in the present application. The BET method was developed by Bruner, Emmett, and Teller for measuring surface area by using nitrogen adsorption condensation in pores at liquid nitrogen temperature.
6. I believe that the BET method of measuring the surface area of inorganic particles is the method most widely used and accepted by those having ordinary skill in the industry. It is much more accurate for measuring high surface area of particles than calculating surface area by measuring particle size and dimension.
7. It is therefore my opinion that one of ordinary skill in the art, when viewing the specific surface area measurements ($m^2/gram$) disclosed and claimed in the present application, would understand that the measurements were made using the BET surface area method.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under § 1001 of Title 18 of the United State Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.


James Gary Pruett

9/30/04
Date